

## Remarks

### Status of the Application

Applicants respectfully request reconsideration of the rejections set forth in the Office Action mailed on February 19, 2003. The Examiner has objected to the Abstract because the first sentence is unnecessary. The Examiner has rejected claims 1-26 under U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,044,398 to *Marullo (Marullo)* et al. in view of U.S. Patent No. 6,185,619 to *Joffe (Joffe)* et al. The claims have been amended to further clarify the subject matter regarded as the invention. Claims 1-26 remain pending in the current application.

### Abstract

The Examiner has objected to the introductory phrase of the Abstract as unnecessary under MPEP § 608.01(b). Applicants have amended the Abstract to remove the introductory phrase and respectfully submit that the Abstract, in its amended form, is now proper.

### Cited Art Distinguished

*Marullo* discloses a system and method that “automatically exercises and verifies web server applications and scripts by simulating a web browser to request, capture, store, and verify data returned from web servers” (*see* Abstract; emphasis added). In practice, *Marullo* describes a system where a virtual dynamic web browser performs automated web server application verification and testing (*see* col. 7, l. 65 – col. 8, l. 4). The web browser may send input to the web server application either from an input data file (34), or a user/tester employing a GUI edit field input (36) (*see* col. 8, ll. 4-7). The problem solved by *Marullo* is the high order testing of web server applications by comparing input data with known or saved result(s) of a previous transversal of the web application. (*see* col. 8, ll. 12-17). The comparison of the data results in a log file that can reveal the *performance characteristics* of the underlying software package (*see* col. 8, ll. 18-55).

By contrast, the present invention requires a virtual machine configured to function *as a web server* (*see* Specification p. 8, ll.12-25; claim 1). The web server serves as a “window into the “state and performance” of the underlying virtual machine by “handling queries relating to the virtual machine” and “wherein the reply [from the web server] provides insight into or effects the operation of the virtual machine” (*see id.*). Thus, the present invention allows a remote user to query the virtual machine remotely via, for example, a web browser. Furthermore, the query

is not simply an input data file to test the performance of the web server application as in *Marullo*, but is a debugging tool that allows a user to access low order details about the underlying virtual machine. Finally, the application is not configured to act as a *web browser* as in *Marullo*. Rather, the present invention requires a virtual machine configured to act as a *web server* so that a remote user using a web browser may access information about the virtual machine.

## **The Claims**

### **Claim 1**

The Examiner has rejected claim 1 under U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,044,398 to *Marullo* in view of U.S. Patent No. 6,185,619 to *Joffe*.

Claim 1 requires, “[a] virtual machine configurable to function as a web server, the virtual machine comprising: a request handler worker for handling queries relating to the virtual machine.” *Marullo* discloses an application configured as a *web browser* to verify a web server application using input data (*see* Abstract). The present claim requires a virtual machine configured as a *web server* to handle queries relating to the virtual machine. As described above, *Marullo* discloses using input data rather than a user query. Thus, *Marullo* neither discloses nor suggests handling queries relating to a virtual machine.

Claim 1 further requires, “an operations worker for constructing output containing a reply to the incoming query, wherein the reply provides insight into or effects the operation of the virtual machine”. *Marullo* does not provide insight into nor effects the operation of a virtual machine that is configured to function as a web server.

*Joffe*, the Examiner’s secondary reference, describes a method for communication between multiple network servers. The Examiner has correctly cited col. 4, ll. 61-63 for the proposition that a virtual machine can function as a server. However, *Joffe* does not cure the deficiencies of *Marullo*. Thus, the ability to provide insight into or effect the operation of the virtual machine is lacking in any reasonable combination of the aforementioned references. Therefore Applicant respectfully submits that claim 1 is patentable over the art for at least these reasons.

### **Claims 2-12**

Applicants respectfully submit that claims 2-12 depend directly or indirectly from independent claim 1 and are therefore allowable over the cited art for at least the reasons stated for claim 1 above. However, the dependent claims recite additional limitations that further

distinguish them from the cited references. For instance, dependent claim 4 depends from claim 1 and further recites that “the request handler worker further includes a query parser for parsing the incoming query to identify one of the plurality of services to be used by the operations worker to generate the reply to the incoming query.” As another example, dependent claim 10 depends from claim 9 and further recites “wherein the request handler worker creates the request data structure that identifies one of the plurality of services to be used by the operations worker for generating the reply to the incoming query.” Dependent claim 11 depends from claim 9 and further recites “wherein the request data structure has a service pointer area that identifies the one of the plurality of services to be used by the operations worker for generating the reply to the incoming query, a response buffer area, and a segment query area.” Hence, Applicants respectfully submit that the dependent claims 2-12 are patentable over the cited references.

#### Claims 13 and 26

The Examiner has rejected claims 13 and 26 under U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,044,398 to *Marullo* in view of U.S. Patent No. 6,185,619 to *Joffe*.

Applicants have amended claim 13 to explicitly require, “wherein the response provides insight into or effects the operation of the virtual machine.” Support for this amendment may be found in the Specification (see Specification p. 8, ll.12-25; claim 1).

Amended claim 13 requires, “[a] method of handling an incoming query to a virtual machine.” *Marullo* does not handle an incoming query to a virtual machine whether configured as a web server or not. *Marullo* discloses an application configured as a web browser to act upon a web server application using known input data, whether received from a GUI edit field or input data file (see Abstract). Thus, the web server application in *Marullo* receives input data in contrast to the present claim, which receives queries to a virtual machine.

Amended claim 13 further requires, “processing the request to determine [the] a service needed to respond to the request” and “creating a request data structure that identifies the service needed to respond to the request.” Neither of the references, separately or in combination, discloses or suggests processing the request to determine a service needed to respond to the request or creating a request data structure that identifies the service needed to respond to the request.

Amended claim 13 further requires, “effecting a response to the request by passing the request data structure to a virtual machine operations worker, wherein the response provides insight into or effects the operation of the virtual machine; and transmitting the response to the browser.” Neither of the references, separately or in combination, discloses or suggests effecting

a response to the request by passing a request data structure to a virtual machine operations worker, where the response provides insight into or effects the operation of the virtual machine. Moreover, the references neither disclose nor suggest passing a request data structure to the virtual machine operations worker where the request data structure identifies the service needed to respond to the request. Further, neither of the cited references discloses or suggests transmitting a response that provides insight or effects the operation of the virtual machine to a browser. Rather, in *Marullo*, the results of the input data file that are manipulated by the web server application are returned to the virtual browser.

Therefore Applicant respectfully submits that amended claim 13 is patentable over the art for at least these reasons.

Applicants further submit that amended claim 26 is a computer readable medium claim with similar limitations to those in claim 13 and is therefore patentable for at least the same reasons as claim 13 above.


#### Claims 14-25

Applicants respectfully submit that claims 14-25 depend directly or indirectly from independent claim 13 and are therefore allowable over the cited art for at least the reasons stated for claim 13 above.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,

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